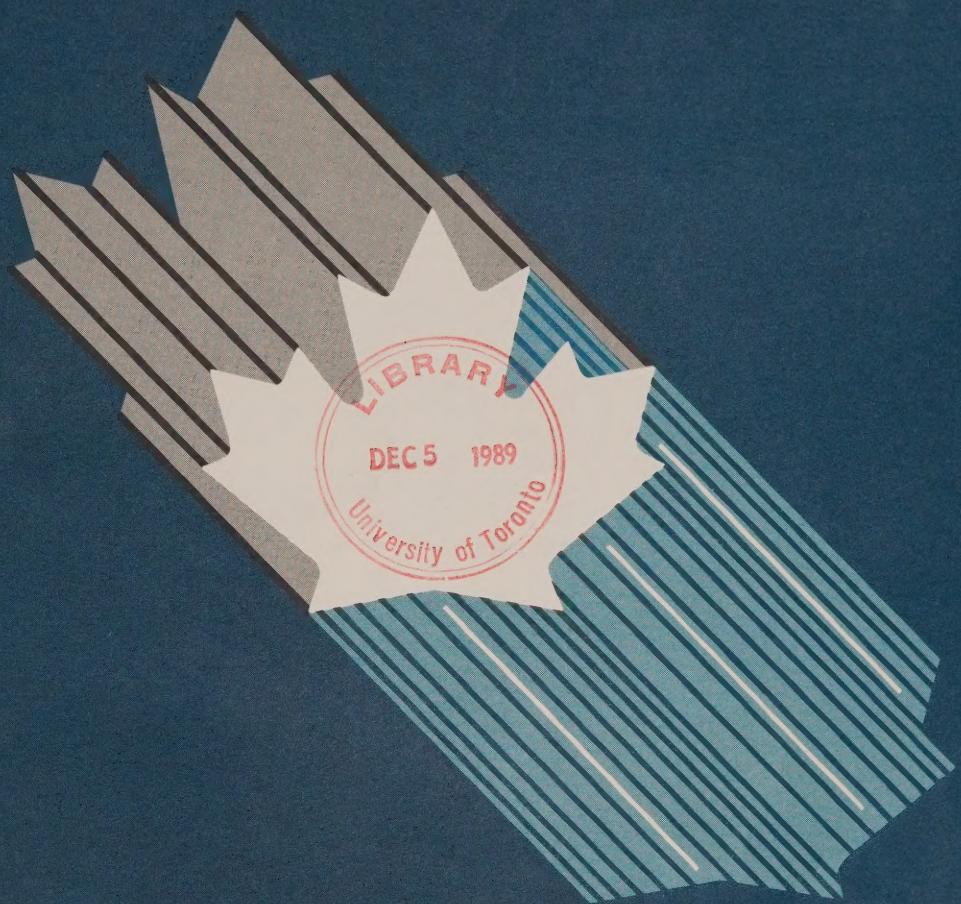


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INDUSTRY
PROFILE

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Industry, Science and
Technology Canada

Industrie, Sciences et
Technologie Canada

Structural Wood-Based Panel Products

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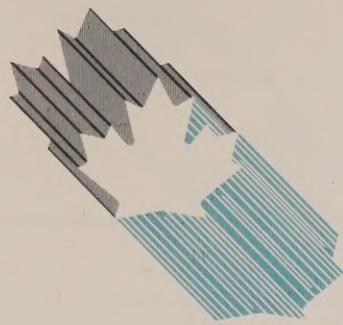
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INDUSTRY PROFILE

STRUCTURAL WOOD-BASED PANEL PRODUCTS

1988

FOREWORD

• • • • •

In a rapidly changing global trade environment, the international competitiveness of Canadian industry is the key to survival and growth. This Industry Profile is one of a series of papers which assess, in a summary form, the current competitiveness of Canada's industrial sectors, taking into account technological and other key factors, and changes anticipated under the Canada-U.S. Free Trade Agreement. Industry participants were consulted in the preparation of the papers.

The series is being published as steps are being taken to create the new Department of Industry, Science and Technology from the consolidation of the Department of Regional Industrial Expansion and the Ministry of State for Science and Technology. It is my intention that the series will be updated on a regular basis and continue to be a product of the new department. I sincerely hope that these profiles will be informative to those interested in Canadian industrial development and serve as a basis for discussion of industrial trends, prospects and strategic directions.

Minister

Canada

1. Structure and Performance

Structure

The structural wood-based panel products industry is made up of two major sub-sectors: *softwood plywood* and *waferboard/oriented strandboard (OSB)*. (Non-structural wood-based panel products are described in another profile). Softwood veneer, which is an intermediate product used in the manufacture of plywood, is produced by a number of specialized manufacturers as well as by plywood producers. Considerable volumes of veneer are sold in export markets for the manufacture of softwood plywood, so this product will be included as part of the softwood plywood sub-sector. OSB is a second-generation waferboard with improved physical properties, which is used in the same applications as waferboard.

Softwood plywood is manufactured in specialized mills which either produce the veneer they require on in-plant rotary lathes or purchase it from other veneer manufacturers. The sheets of veneer are first trimmed to remove waste, then dried, treated with a waterproof glue and consolidated under high pressure in multi-opening hot presses. Plywood is usually manufactured in 4 ft. x 8 ft. panels (1.22 m x 2.44 m), although some mills produce other sizes for special end uses.

Waferboard/OSB is produced in mills which reduce aspen logs to rectangular flakes or strands. After the flakes are dried, they are blended with resin and deposited on continuously moving mats. Some mills orient the wafers or strands in different directions throughout the mat to impart various desirable physical properties to the finished product. The mat is then pressed under heat into large panels, which are cut to the standard 4 ft. x 8 ft. size (1.22 m x 2.44 m), although others are also available.

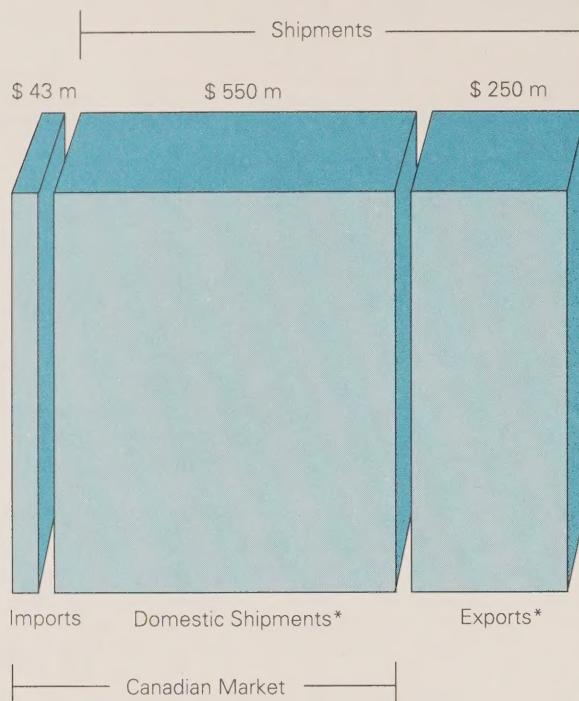
Softwood plywood and waferboard/OSB compete for many but not all end uses and are generally sold in standard-sized panels used primarily for construction, packaging and industrial applications. Softwood plywood, including upgraded specialty products such as overlaid concrete-form plywood, is used extensively in engineered structures, as well as industrial and packaging applications in domestic and offshore markets. Waferboard/OSB is used predominantly in the residential and commercial construction sector in both Canada and the United States. At present, only limited volumes of waferboard/OSB are exported offshore and very little of the product is upgraded.

Because all products included in this industry are manufactured with waterproof adhesives, they are suitable for most exterior end-use applications. To a large extent, the use of softwood plywood in Canadian residential construction has been replaced by the less expensive waferboard/OSB, particularly in the east. With the exception of some wall sheathing applications in residential buildings, the structural wood-based panel products industry does not face competition from other products.



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*Imports, Exports and Domestic Shipments
1986*

* ISTC estimate

In 1986, the value of shipments for the sector totalled an estimated \$800 million, which represented about 6.8 percent of total wood products shipments. About 80 percent of softwood plywood and some 50 percent of waferboard/OSB is consumed in the domestic market. Domestic shipments of softwood plywood in 1986 were valued at an estimated \$400 million, and those of waferboard/OSB at \$150 million. The industry currently employs an estimated 6700 persons directly, and there are additional jobs in related forest harvesting operations.

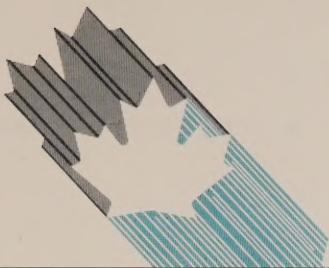
Exports in 1986 were valued at \$250 million and included sales of waferboard/OSB and softwood veneer to the United States, and softwood plywood sales to the European Community (E.C.) and Japan. Exports represented about 31 percent of the value of all structural panel product shipments in 1986. By comparison, imports in 1986 (largely U.S.-produced softwood plywood) grew to seven percent of domestic structural panel consumption. Except during periods when production was curtailed, plywood imports have not generally been a significant factor in the Canadian market, due mainly to differences in product standards, high Canadian tariffs, and currency exchange rates unfavourable to imports into Canada.

The softwood plywood sub-sector is based on two major, relatively slow-growing species groups — Douglas fir, found mainly in the southwestern part of British Columbia, and spruce, pine and fir, which grow throughout the rest of Canada. Because of competition for these trees from the softwood lumber industry and the long time they need to reach a suitable harvesting size, the traditional resource in terms of log size has been declining. As a result, the British Columbia coastal industry is now using some Hemlock and Balsam fir in the manufacture of plywood. Nevertheless, an adequate supply of peeler-quality logs should continue to be available to most producers over the medium-to-longer term. Waferboard/OSB, on the other hand, is based almost entirely on rapidly growing aspen, which can be found in abundance in a wide belt across the country.

The softwood plywood sub-sector has 24 operating softwood plywood manufacturing establishments and 10 softwood veneer mills. There are 14 waferboard/OSB mills, one of which is currently not producing, as well as several mills under construction. About half of the softwood plywood-veneer and waferboard/OSB plants (representing about 60 percent of total capacity) are owned by large, integrated, forest product companies. Eight of the waferboard/OSB mills in Canada are owned by companies which also produce softwood plywood. The plywood mills which are not associated with waferboard/OSB manufacturers are owned by smaller independent owners and co-operatives. One is owned by a provincial government.

While some 65 percent of current capacity in structural wood-based panel products is Canadian-owned, foreign ownership is also significant, particularly in the plywood sub-sector. Four softwood plywood mills are controlled by U.S. interests, four by New Zealand, and one is partly owned by a Japanese group. Three of the softwood veneer producers are also owned by foreign interests. In the waferboard/OSB sub-sector, five of the operating Canadian plants are owned to a significant degree by U.S. interests.

The distribution of products in the domestic market is carried out by large, integrated distribution organizations (some owned by producers), independent wholesalers as well as national and local building supply centres. Softwood plywood is marketed offshore by relatively few exporters. In the United States, Canadian waferboard/OSB is distributed by a network similar to the one in Canada, comprising integrated distributors and national and local wholesalers, some of which are owned by U.S. producers. In addition, at least one integrated Canadian producer has established a U.S. distribution system to market its full range of wood-based products.



The capacity of the Canadian industry is currently estimated at about five billion square feet (BSF) on a 3/8-in. basis (4.4 million cubic metres). The comparable American capacity for similar products is an estimated 32 BSF (28.3 million cubic metres). Canadian plants represent about 12 percent of total world capacity, which is estimated at more than 40 BSF (more than 35 million cubic metres).

The Canadian waferboard/OSB sub-sector represents about 34 percent of total North American capacity. Offshore exports have been limited to relatively small volumes by the existence of high tariffs, lack of acceptance by foreign building codes, higher transportation costs compared to softwood plywood and a lack of product knowledge in most offshore markets. Indeed, waferboard/OSB had been a North American product exclusively until the recent openings of several plants in Europe and New Zealand.

During 1987, a number of new OSB mills came on stream in British Columbia and Alberta. New waferboard/OSB projects are now under construction in Ontario and Quebec and several others are under consideration. While no new softwood plywood mills have been announced, significant capacity expansion is being achieved through mill modernization programs. One new softwood veneer plant began production in 1988.

It is estimated that 85 percent of softwood plywood capacity is concentrated in British Columbia, with the remainder spread across the country. About 90 percent of softwood veneer capacity is also located in British Columbia, with the remainder in Alberta. Waferboard/OSB manufacturing capacity is located in the Prairies (33 percent), Quebec (26 percent), Ontario (24 percent), British Columbia (11 percent) and the Atlantic provinces (six percent).

Performance

Within the structural wood-based panel products industry, there has been a considerable price-related substitution of waferboard/OSB for softwood plywood. Between 1977 and 1987, Canadian waferboard/OSB capacity expanded rapidly from 12 to about 47 percent of total structural wood-based panel capacity. Waferboard/OSB production grew at an average annual rate of about 13 percent between 1978 and 1987. Softwood plywood production grew at an average annual rate of 3.5 percent between 1973 and 1978, then declined by 10.2 percent during the 1978-1982 period. After the recession of the early 1980s, softwood plywood output recovered to the production levels of the early 1970s. The overall growth of the whole industry has been due to continuing residential building activity and strong exports of waferboard/OSB to the United States.

In the past, exports of Canadian softwood plywood have been relatively stable at about 20 percent of production. Over the past three years, however, export shipments have been declining, so that by 1987, they represented only about 12 percent of the total. Offshore exports to the E.C. continue to face intense price competition from U.S. plywood. Waferboard/OSB exports to the United States have generally increased over the past five years in spite of competition from both U.S. plywood and an increasing volume of U.S.-produced waferboard/OSB.

During 1987, Canadian structural wood-based panel mills operated at about 90 percent of capacity. The rate of utilization would have been even higher, except for the start up of some new waferboard/OSB capacity and the modernization of several plywood mills. At the same time, the U.S. industry operated at 81 percent of capacity, a level similarly depressed by the start up of some new waferboard/OSB mills. Over the past five years, the rapid increase in waferboard/OSB production has caused an oversupply of structural panels in the domestic market, which has depressed prices of both waferboard/OSB and softwood plywood.

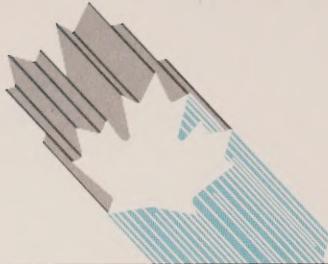
In the past, waferboard/OSB has sold at a price of about 15 percent below that of softwood plywood. The recent oversupply of waferboard/OSB and the recovery of softwood plywood for some end uses have widened the price differential between the two products in North America. During the first quarter of 1988, softwood plywood sold at a premium of 35 to 50 percent over waferboard/OSB used for the same end uses. This widening price differential was due to both overcapacity and some builder and consumer preferences for softwood plywood.

2. Strengths and Weaknesses

Structural Factors

Existing Canadian waferboard/OSB mills are smaller than the largest mills currently producing or under construction in the United States. New Canadian waferboard/OSB mills are generally large plants built to take advantage of economies of scale. Unlike most Canadian mills, some U.S. OSB plants built in the mid-1980s have a relatively small capacity designed to serve regional markets. Plant capacity of Canadian softwood plywood mills is generally similar to that in the United States.

One of the most significant differences between the Canadian softwood plywood sub-sector and its U.S. counterpart is the level of output by grade. In the United States, about 45 percent of total softwood plywood production is C-D grade. This is a lower-grade sheathing product not manufactured in Canada, but which provides strong competition for Canadian sheathing plywood in offshore markets that are price-sensitive. Production of the C-D grade in Canada is not considered commercially viable, given the characteristics of the wood resource available domestically.



Average raw material costs for Canadian-produced softwood plywood and waferboard/OSB represent about 40 and 35 percent of manufacturing costs respectively. These costs are estimated to be somewhat lower than comparable U.S. prices. However, recent provincial stumpage increases and resource competition have raised raw material costs to the plywood sub-sector.

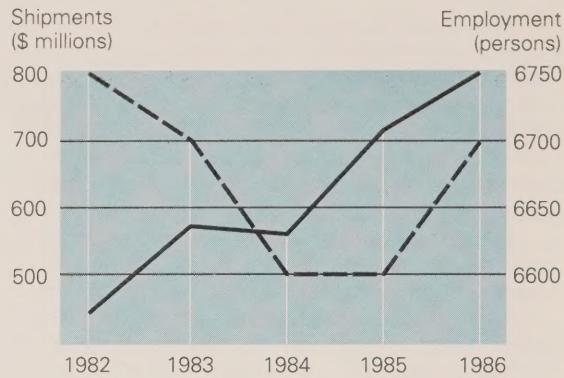
The wood cost for the production of waferboard/OSB, manufactured principally from readily available aspen, is much lower than that for plywood. New pulp mill projects, which use large volumes of aspen (particularly in western Canada), will, however, increase the pressure on the resource and drive wood cost up. The American industry is also concerned that an adequate supply of suitable raw material may not be available to support, over the long term, the present level of U.S. output.

Resin, energy and labour are the major components of manufacturing costs in the structural panel industry. The average costs incurred by domestic softwood plywood producers are estimated to be somewhat higher than those of their U.S. counterparts. At the same time, while resin and labour costs are higher in Canada than in the United States, they are partially offset by lower energy and raw material costs. On average, production costs of Canadian waferboard/OSB manufacturers are marginally lower than those of American producers.

It is important that production facilities are close to major consuming regions because of the relatively high transportation costs. In this context, the waferboard/OSB sub-sector has an advantage over softwood plywood since about 50 percent of its capacity is situated near major domestic markets in eastern Canada. The potential transportation advantage of Prairie waferboard/OSB producers, which ship to major markets in eastern Canada, is largely offset by the greater weight of waferboard/OSB relative to softwood plywood produced in British Columbia.

Trade-related Factors

There is very little trade in softwood plywood between Canada and the United States with the current Canadian tariff at 15 percent and its U.S. counterpart at 20 percent. Certain grades of softwood plywood enter the E.C. under an annual GATT-bound duty-free global quota of 650 000 cubic metres (736 million square feet 3/8-in. basis). Volumes in excess of the quota are subject to a 10 percent tariff. The E.C. imports certain types and thicknesses not included in the quota which are also subject to the same tariff. A 15 percent tariff and competition from Asian hardwood plywood manufacturers have limited Canadian exports to Japan in the past. However, Japanese plywood tariffs were recently reduced to 10 percent. As well, Canadian softwood plywood used in residential construction can now be graded to Japanese standards at Canadian mills.



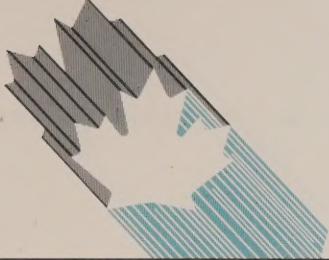
Total Shipments and Employment

* ISTC estimate

The principal export market for Canadian waferboard/OSB is the United States. The acceptance of waferboard/OSB by U.S. residential building codes, a low four percent tariff, and a rapidly expanding market are factors contributing to the industry's export performance. Exports to offshore markets, particularly to the E.C., have been limited by a 10 percent tariff, the lack of acceptance of waferboard/OSB by European building codes and limited product knowledge. In Canada, the import duty is currently four percent.

Under the terms of the Canada-U.S. Free Trade Agreement (FTA), the Canada Mortgage and Housing Corporation (CMHC) evaluated the U.S. C-D grade of plywood to determine whether it can be used in housing financed by CMHC. The evaluation confirmed CMHC's initial decision not to approve its use. The FTA provides a review process which the United States decided to forego in favour of a binational committee of experts to oversee the establishment of "bond durability criteria" and "test methods" required to complete development of common performance standards.

The new trade remedy procedures and binational dispute-settlement mechanism provided under the FTA will therefore be important to this industry. However, until the issue of plywood standards is successfully resolved, the United States has indicated that it will not proceed with the phased-in elimination of tariffs for softwood plywood, waferboard/OSB or particleboard. Canada considers the U.S. position on tariff elimination to be inconsistent with the FTA but also maintains the option of delaying implementation of tariff concessions.



Technological Factors

The Canadian softwood plywood industry depends largely on U.S. and offshore equipment manufacturers for major components such as presses, conventional lathes and dryers. Some specialized veneer clipping, sorting and other handling equipment is manufactured in Canada and is also available to foreign competitors. A significant number of major components in Canadian and U.S. waferboard/OSB mills originate abroad, particularly from suppliers located in the Federal Republic of Germany (F.R.G.).

Recent process-related technological developments, such as the spindleless lathe, veneer incisors, moisture sensors and new glue spreading techniques, are expected to improve competitiveness through superior fibre utilization and reduced manufacturing costs. These developments will also provide offshore export opportunities for softwood veneer in the Pacific Rim. Equipment manufacturers and suppliers in Canada, the F.R.G., the United States and Scandinavia play an important role in the industry. Consequently, the technology is generally available to all producers.

Technology to develop new products and improve existing ones such as specialty plywood, including overlaid panels for concrete forming, is well established at a number of major companies. Research to develop a stabilized waferboard/OSB is also under way, which, if successful, will significantly reduce moisture-related swelling and enable waferboard to be treated with chemical preservatives. As well, research is being carried out on new resin technology which will benefit both plywood and waferboard/OSB manufacturers.

Technology to improve both the product and the manufacturing process is being developed by facilities such as Forintek Canada Corp. and the Plywood Technical Centre of the Council of Forest Industries (COFI) of British Columbia.

Other Factors

Because of its narrow operating margins, the industry's export performance is affected to an important degree by currency exchange relationships. An example is the decline in Canadian exports of softwood plywood to Italy which occurred in the early 1980s.

Since one of the major end uses for structural panels is in residential and non-residential construction, the cyclical nature of the construction industry has a significant impact on plywood and waferboard/OSB producers. However, seasonal variation in domestic demand for the softwood plywood sub-sector is offset to a large degree by export opportunities in the first half of each year due to the European plywood requirements associated with the E.C. duty-free quota.

3. Evolving Environment

The structural wood-based panel industry is highly sensitive to residential construction activity in both Canada and the United States. Longer-term forecasts suggest overall growth in market demand fuelled by significant increases in non-residential construction, the repair and renovation industry and industrial end uses. Some declines are expected because demographic factors will reduce the number of housing starts. In Canada, the repair and renovation market currently represents about 16 percent of total industry consumption and is growing.

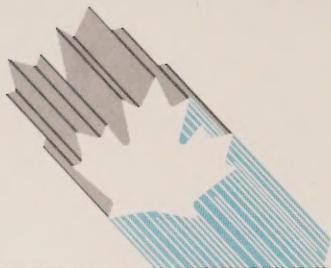
Over the long term, waferboard/OSB will continue to replace plywood in many applications and is expected to represent about 75 percent of structural wood-based panel demand by 2010. The softwood plywood industry continues to be under pressure to find alternative markets abroad or develop improved or higher-value uses and products. However, it has recovered some market share in domestic residential roofing applications.

The much larger U.S. softwood plywood industry can also be expected to intensify its marketing efforts in Europe and elsewhere as its domestic market is eroded by waferboard/OSB. Canada's share of U.S. waferboard/OSB markets dropped from 46 percent in 1981 to 17 percent in 1987 and will continue to decline for the next few years because of the significant expansion in U.S. waferboard/OSB capacity. Nevertheless, the volume of Canadian exports to the United States should continue to grow.

Offshore markets such as the E.C. and Japan have historically represented about 20 percent of production, and will continue to be important markets for Canadian softwood plywood. However, intense competition can be anticipated from U.S. C-D grade plywood and European and other foreign plywood. Exports of Canadian plywood to Japan should improve further with the recent reduction in import tariffs and Japanese government approvals qualifying COFI as a Foreign Testing Organization. The latter will allow COFI-approved Canadian mills to grade stamp softwood plywood as meeting Japanese standards and avoid costly re-grading in Japan.

The application of emerging technology in the industry can be expected to enhance raw material use and productivity and to improve energy conservation. Recent R&D activities include the development of a new edge profile for plywood used in roofing, foamed adhesives and application equipment, moisture sensors and steam injection presses.

Employment levels are not likely to change significantly over the medium term, although some shifts between the two sub-sectors are likely as waferboard/OSB continues to increase its share of total sector output.



4. Competitiveness Assessment

The softwood plywood sub-sector continues to be competitive in domestic and several offshore markets, even though waferboard/OSB continues to be substituted for softwood plywood in residential sheathing applications, particularly in large domestic housing developments. Softwood plywood is currently preferred for a number of industrial uses, including packaging and concrete forming. Another factor is the significant reduction in manufacturing costs as a result of recent technological advances and investment by the industry.

If current discussions on the harmonization of softwood plywood standards in Canada and the United States are successful and tariff reductions are implemented, some rationalization and adjustment can be anticipated. Although only limited trade in softwood plywood exists between the two countries at present, removal of tariffs could result in increased Canadian imports of American C-D grade plywood with some increases in the export of Canadian specialty softwood plywood products.

The Canadian waferboard/OSB sub-sector is currently competing effectively in both domestic and U.S. markets. Although some rationalization of older plants in Canada will occur, waferboard/OSB can be expected to continue to maintain its penetration of residential sheathing markets and gain increasing acceptance in the growing renovation, industrial and do-it-yourself sectors. Offshore market opportunities have been limited and this situation is unlikely to improve in the short to medium term because of tariff barriers and lack of acceptance of the product outside of North America. Once the softwood plywood standards issue is resolved, the FTA will have a positive impact on the domestic waferboard/OSB industry.

The establishment of new trade remedy procedures and a dispute-settlement mechanism under the FTA is expected to enhance secure market access for existing and future products within the entire structural wood-based panel products industry.

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Industry, Science and Technology Canada
Attention: Structural Wood-based
Panel Products
235 Queen Street
Ottawa, Ontario
K1A 0H5

(613) 954-3039

PRINCIPAL STATISTICS
SIC(s) COVERED: 2522, 2593 (1980 basis)

	1973	1981	1982	1983	1984	1985	1986
Establishments ^e	28	44	45	46	45	45	46
Employment ^e	5 000	6 600	6 750	6 700	6 600	6 600	6 700
Shipments (\$ millions) ^e	327	606	441	578	571	715	800

TRADE STATISTICS

	1973	1981	1982	1983	1984	1985	1986
Exports (\$ millions) ^g	70	149	165	195	247	275	250
Domestic shipments (\$ millions) ^e	257	457	276	383	324	440	550
Imports (\$ millions)	24	42	12	14	18	19	43
Canadian market (\$ millions) ^e	281	499	288	397	342	459	593
Exports as % of shipments	21	25	37	34	43	38	31
Imports as % of domestic market	9	8	4	4	5	4	7
Canadian share of international market (%)	7	10	9	10	13	13	12
Source of imports (% of total value)					U.S.	E.C.	Asia
					1981	99	—
					1983	99	—
					1984	99	—
					1985	99	—
					1986	99	—
Destination of exports (% of total value)					U.S.	E.C.	Asia
					1981	27	69
					1983	41	54
					1984	50	46
					1985	56	39
					1986	62	34
							Others

(continued)

REGIONAL DISTRIBUTION — Average over the last 3 years

	Atlantic	Quebec	Ontario	Prairies	B.C.
Establishments – % of total	1	11	13	20	55
Employment – % of total	1	7	14	18	60
Shipments – % of total	1	17	21	21	40

MAJOR FIRMS

Name	Ownership	Location of Major Plants
Weldwood of Canada Limited	American	Vancouver, Williams Lake, Quesnel, British Columbia; Slave Lake, Alberta; Longlac, Ontario
Fletcher Challenge Canada Ltd.	New Zealand	Delta, New Westminster, Kelowna, Armstrong, British Columbia
MacMillan Bloedel Limited	Canadian	Port Alberni, British Columbia; Hudson Bay, Saskatchewan; Thunder Bay, Ontario
Normick Perron Inc.	Canadian	La Sarre, Val-d'Or, Chambord, Quebec
Pelican Spruce Mills Ltd.	Canadian	Edson, Drayton Valley, Alberta

e ISTC estimate

Note: Statistics Canada data have been used in preparing this profile.

REPARTITION REGIONALE — Moyenne des 3 dernières années

Expeditions (en %)	1	17	21	21	40
Emplois (en %)	1	7	14	18	60
Établissements (en %)	1	11	13	20	55
Altatiq'ue Québec Ontario Prairies C.-B.					

PRINCIPALES SOCIEDADES

Weldwood of Canada Limited	américaine	Vancouver, Williams Lake et Quesnel (C-B.)	Propriété Emploi	Weldwood of Canada Limited
Fletcher Challenge Canada Ltd.	néo-zélandaise	Delta, New Westminister KeLOWna et Armstrong (C-B.)	Detra, New Westminister KELowna et Armstrong (C-B.)	Fletcher Challenge Canada Ltd.
MacMillan Bloedel Limited	canadienne	Port Alberni (C-B.) Hudson Bay (Saskatchewan) Thunder Bay (Ontario)	Port Alberni (C-B.) Hudson Bay (Saskatchewan) Thunder Bay (Ontario)	MacMillan Bloedel Limited
Normick Perron Inc.	canadienne	La Sarre, Val-d'Or et Chambord (Québec)	La Sarre, Val-d'Or et Chambord (Québec)	Normick Perron Inc.
Pelican Spruce Mills Ltd.	canadienne	Edson et Drayton Valley (Alberta)	Edson et Drayton Valley (Alberta)	Pelican Spruce Mills Ltd.

Les données utilisées dans ce profil proviennent de Statistique Canada.

* Les montants indiqués sont exprimés en millions de dollars.

Estimations d'ISTC.

STATISTIQUES COMMERCIALES									
1973	1981	1982	1983	1984	1985	1986	1987	1988	1989
Exportations* /e	70	149	165	195	247	275	250	21	25
Expéditions intérieures* /e	257	457	276	383	324	440	550	24	42
Marché intérieur* /e	281	499	288	397	342	459	593	9	8
Importations (en % des expéditions)	21	25	37	34	43	38	31	9	8
Part canadienne du marché international (en %)	7	10	9	10	13	13	12	7	7
Source des importations (en %)	1981	99	—	1	—	—	—	99	99
Destination des exportations (en %)	1981	27	CE	Asie	Autres	—	—	99	99
1982	69	3	1	2	3	1	1	62	62
1983	41	54	3	2	1	1	1	56	56
1984	41	50	46	3	2	1	1	39	39
1985	50	54	3	2	1	1	1	34	34
1986	62	3	1	1	1	1	1	2	2
1987	69	3	1	1	1	1	1	3	3
1988	62	2	1	1	1	1	1	1	1
1989	62	2	1	1	1	1	1	1	1

PRINCIPALES STATISTIQUES							
CTI 2522 et 2593 (1980)							
Etablissements* /e	28	44	45	46	45	45	46
Emplois* /e	5 000	6 600	6 750	6 700	6 600	6 600	6 700
Expéditions* /e	327	606	441	578	571	715	800

Si les discussions en cours entre le Canada et les Etats-Unis sur l'harmonisation des normes industrielles au contraire de la réglementation commerciale des deux pays soit actuellement limitée, l'élimination entre les deux pays de certains obstacles au commerce devra être réalisée et adaptée aux activités industrielles au Canada. Bien que le commerce du contreplaqué de résineux entre les deux pays soit actuellement limité, l'élimination de ces tarifs pourra entraîner pour le Canada une hausse des importations de contreplaqué américain de la catégorie C-D et une hausse des exportations canadiennes de contreplaqué de résineux dans les Etats-Unis. Actuellement, le sous-secteur canadien des panneaux gaufrés et des panneaux OSB est compétitif. Les usines canadiennes plus anciennes ferment l'objectif d'une certaine rationalisation, mais les panneaux gaufrés et les panneaux OSB pourraient continuer de penetrer sur les marchés du contreplaqué de résineux et des normes résidentielles et commerciales. Les usines canadiennes plus anciennes comme la terraine dans des secteurs en expansion ont le plus de difficultés à établir des partenariats avec les entreprises étrangères et échangent de moins en moins avec les marchés internationaux. Les échanges de résineux, l'Amérique du Nord, et au Canada, sont l'industrie canadienne des répercussions positives sur l'industrie canadienne des panneaux gaufrés et des panneaux OSB.

Transformation des richesses naturelles Industrie, Sciences et Technologie Canada Objet : Panneauz dérivés du bois —

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Constitution

Pour de plus amples renseignements sur ce dossier, s'adresser à :

concrètement pour bâtiments résidentiels et commerciaux la rénovation, les applications industrielles et le bricolage. Les débouchés à l'étranger ont été limités et le resteront un certain temps, en raison des barrières douanières et de la non-homologation du produit à l'extérieur de l'Amérique du Nord. Une fois réglée la question des normes relatives au contreplaqué de résineux, l'accord de libre-échange devrait avoir des répercussions positives sur l'industrie canadienne des panneaux gaufrés et sur l'industrie canadienne des panneaux commerciaux et les nouveaux recours commerciaux et les accords facilitant l'accès aux marchés prévus par le principe de l'arbitrage des différends pour les produits de l'industrie des panneaux.

Actuallement, le sous-secrétariat canadien des pannneaux gaufrés et des pannneaux OSB est compétitif. Les usines canadiennes plus anciennes ferment l'objet d'une certaine rationalisation, mais les pannneaux gaufrés et les pannneaux OSB pourraient continuer de détenir sur les marchés du Québec.

Si les discussions en cours entre le Canada et les Etats-Unis sur l'harmonisation des normes relatives au contreplaqué de résineux sont un succès, les réductions de tarifs entretenus en vigueur, cette industrie devra rationaliser et adapter ses activités. Bien que le commerce du contreplaqué de résineux entre les 2 pays soit actuellement limité, l'élimination des tarifs pourraient pour le Canada une hausse des importations de contreplaqué américain de catégorie C-D et une hausse des exportations de contreplaqué spécialisées de contreplaqué de résineux.

Le sous-secteur du contreplaqué de résineux reste compétitif sur le marché intérieur et plusieurs marchés étrangers, même si les panneaux gaufrés et les panneaux OSB continuent de remplacer ce produit comme contrevenement dans la construction résidentielle. Le contreplaqué de résineux empêtre tout cercraies utilisations industrielles, dont le coffrage du béton et l'emballage. La diminution sensible des coûts de fabrication résultant des dernières progrès techniques et des investissements floraux l'industrie aura d'importantes répercussions.

4. Evaluation de la compétitivité

Une reclassification couturière au Japon. Les applications des plus récentes techniques dans cette industrie devrait améliorer l'utilisation des matières premières si rares qu'accroître la productivité et les économies d'énergie. Recemment, les travaux de R-D ont porté sur la modélisation de la feuillure contreplaqué destinée aux toitures, les adhésifs en mousse, le matériau d'encollage, les lecteurs d'humidité et les processus à injection de vapour. Le nombre d'emplois ne changera guère à moyen terme, mais sa répartition entre les 2 sous-secteurs devrait se modifier, car les panneaux gaufrés et les panneaux OSB continuent d'augmenter leur part de la production totale.

Les marchés d'outre-mer comme la CEE et le Japon, qui absorbent quelque 20 p. 100 de la production canadienne, démarrent en importants pour le Canada. Toutefois, le contreplaqué de résineux canadien. Toutefois, le contreplaqué métrique de catégorie C-D et les contreplaques fabriqués en Europe de l'Ouest et ailleurs devraient livrer une vive concurrence aux produits canadiens. Les exportations de contreplaqué japonais devraient continuer de croître en raison de la réduction des tarifs imposés par ce pays et de l'approbation par le gouvernement canadien au Japon d'variétés de contreplaqué japonais du COFI à titre d'organisme d'essai étranger. Cette décision permettra aux usines canadiennes d'agréer par le COFI d'apposer sur les catégories de contreplaqué de résineux destinées à la construction domiciliaire un sceau attestant que le produit répond aux normes japonaises, évitant

La part du marché américain des panneaux gaufrés et des panneaux OSB détenu par le Canada est tombée de 46 p. 100 en 1981 à 17 p. 100 en 1987, et continuera à baisser au cours des prochaines années en raison de l'expansion de la capacité de production américaine. Toutefois, les exportations canadiennes vers les États-Unis

Par ailleurs, les recherches visant la création d'une nouvelle ressource devraient profiter aux fabricants panneaux OSB. Forintek Canada Corp. et le Plywood Technical Centre du Council of Forest Industries (COFI) de Colombie-Britannique mettent au point des techniques pour améliorer les produits et les procédés de fabrication.

Autres secteurs

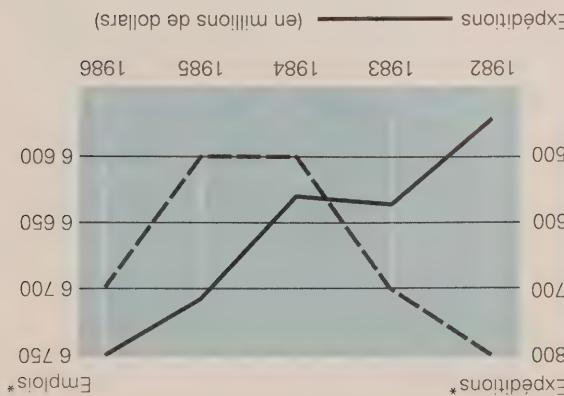
Cette industrie a de faibles marges d'exploitation, ses exportations sont très sensibles aux fluctuations des taux de change, comme en témoigne la baisse des exportations canadiennes de contreplaqué de bois vers l'Italie, notée au début des années 80.

L'industrie de la construction étant un des principaux débouchés pour les panneaux de bois, le caractère cyclique de cette industrie a des répercussions importantes sur les fabricants de contreplaqué, de panneaux gaufrés et de panneaux résineux, les variations saisonnières de la demande sont compensées par les exportations vers la CEE et l'Europe. Dans le sous-secteur du contreplaqué OSB, les fabricants de panneaux gaufrés et de panneaux résineux, les variations saisonnières de la demande sont compensées par les exportations vers la CEE et l'Europe.

3. Evolution de l'environnement

Facteurs technologiques

En vertu de l'Accord de libre-échange entre le Canada et les États-Unis, la Société canadienne d'hypothèques et de logement (SCHL) a évalué la catégorie américaine C-D de contreplaqué de résineux pour déterminer si elle pouvait être utilisée dans les habitats finançés par la Société, mais celle-ci a maintenu sa décision de ne pas autoriser l'utilisation de ce produit. L'accord prévoit un processus d'examens annuels les États-Unis ont décidé de renoncer au profit de la création d'un comité de spécialistes des 2 pays qui établira les « critères de durabilité de l'achèvement » et les « méthodes d'essai ». Les nouveaux recours commerciaux et le nécessaire à l'élaboration de normes communes. L'Accord seraient importants pour cette industrie. En attendant le règlement de la question des normes relatives au contreplaqué, les États-Unis ont indiqué qu'ils ne procéderaient pas à l'élimination progressive des tarifs imposés sur le contreplaqué de résineux, mais il se poserait va à l'encontre de l'Accord, mais il se servirait lui aussi le droit de retarder la mise en application des contraintes tarifaires.



Le bois servant à la fabrication des panneaux gaufrés et souss-secEUR. Les bois moins cher que le bois utilise pour la construction, surtout dans l'ouest canadien, devraient accroître la demande et faire monter les prix du bois. Enfin, un apprivoisement suffisant en matières premières pour maintenir à long terme sa production au niveau actuel.

La résine, l'énergie et la main-d'œuvre sont les principaux facteurs des coûts de fabrication. Pour le contreplaqué de résineux, les coûts moyens de fabrication seraient légèrement plus élevés au Canada qu'aux États-Unis. Par ailleurs, si les coûts de la résine sont compensés en partie par les coûts plus bas de l'énergie et des matières premières. En général, les fabricants canadiens de contreplaqué de résineux sont importants que les installations de production se trouvent à proximité des principaux marchés. A cet égard, le sous-secEUR des panneaux gaufrés et des panneaux OSB jouit d'un avantage sur celui du contreplaqué de résineux, car environ la moitié de la capacité de production est située près des grands marchés de l'Est canadien.

PANNEAUX DÉRIVÉS DU BOIS - CONSTRUCTION

Les usines canadiennes de panneaux gaufrés et de panneaux OSB sont de moins en moins populaires aux États-Unis, même si les nouvelles usines canadiennes sont grandes et conçues pour profiter d'économies d'échelle. Cependant, à la plupart des usines canadiennes, certaines installations américaines de panneaux OSB sont utilisées pour servir certains marchés régionaux.

Facteurs structurels

2. Forces et faiblesses

En 1987, les usines canadiennes de panneaux tournaienent à environ 90 p. 100 de leur capacité. Ce service d'usines de panneaux gaufrés et de panneaux OSB et la modernisation de panneaux contraplaqué. L'industrie américaine ne tourneait qu'à 81 p. 100 de sa capacité, en raison la aussi de l'ouverture d'usines de panneaux gaufrés et de panneaux OSB. Ces 5 dernières années, la hausse surprise de la production de ces panneaux a créé un provoquant une chute des prix des panneaux gaufrés, des panneaux OSB et du prix des panneaux gaufrés et les usines de contreplaqué. Au contraire, les usines de contreplaqué ont accru la différence de prix entre les 2 produits en Amérique du Nord. Au cours du premier trimestre de 1988, le contreplaqué de résineux sort de la production de panneaux gaufrés et le regain de popularité du contreplaqué surpasse le regain de popularité des panneaux gaufrés, qui a été contreplaqué de résineux. Les recents succès 2 produits en Amérique du Nord. Au cours du premier trimestre de 1988, le contreplaqué de résineux se vendait de 35 à 50 p. 100 plus cher que les panneaux gaufrés et les panneaux OSB. L'alignissement de certains constructeurs et consommateurs pour la production dans le sous-secteur des panneaux gaufrés et des panneaux OSB et de la préférence des consommateurs pour le contreplaqué de résineux.

Après la récession du début des années 80, la production de contreplaqué de résineux retrouvaît des niveaux du début des années 70, la croissance globale de l'industrie résultant de l'essor de la construction résidentielle et de la vigueur des exportations de panneaux gaufrés et de panneaux OSB aux États-Unis. La part des exportations dans la production canadienne de contreplaqué de résineux a longtemps été stable à environ 20 p. 100. Toutefois, dans les dernières années, elle a diminué, tombant à 12 p. 100 en 1987. Dans la CEE, le contreplaqué américain continue de livrer une vive concurrence au contreplaqué canadien sur le plan des prix. Les exportations de panneaux gaufrés et de panneaux OSB vers les États-Unis ont augmenté ces 5 dernières années, malgré la concurrence panneaux OSB vers les États-Unis de la hausse des exportations de contreplaqué américain et la production américaine.

Dans cette industrie, étant donné leur prix, les panneaux gaufrés et les panneaux OSB ont souvent remplacé le contreplaqué de résineux. De 1977 à 1987, la capacité canadienne de production de panneaux gaufrés et de panneaux OSB a grimpé rapidement, passant de 12 à environ 47 p. 100 de la capacité totale de production de panneaux. De 1978 à 1987, la production de panneaux gaufrés et de panneaux OSB a augmenté en moyenne d'environ 13 p. 100. De 1973 à 1978, la production de panneaux OSB a diminué de 10,2 p. 100. Les panneaux gaufrés et les panneaux OSB ont connu un mouvement de résineux s'est accélérée à un taux annuel moyen de 3,5 p. 100, mais de 1978 à 1982, elle a diminué de 10,2 p. 100.

Rendement

En 1987, plusieurs usines de panneaux gaufrés et de panneaux OSB ont ouvert leurs portes en Colombie-Britannique et en Alberta. Des usines de panneaux gaufrés et de panneaux OSB sont en chantier en Ontario et au Québec et plusieurs autres sont à l'étude. Dans le sous-secteur du contreplaqué de résineux, la capacité de production augmente sensiblement grâce à la modernisation des usines en activité. Une usine de placage de résineux est entrée en production en 1988.

Environ 85 p. 100 de la capacité de production de contreplaqué de résineux sont concentrées en Colombie-Britannique, le reste étant réparti ailleurs au pays. Quelque 90 p. 100 de la capacité de production de placage de résineux se trouvent en Colombie-Britannique, le reste, en Alberta. Pour les panneaux gaufrés et les panneaux OSB, la capacité de production se répartit ainsi : Prairies, 33 p. 100; Québec, 26 p. 100; Ontario, 24 p. 100; Colombie-Britannique, 11 p. 100 et provinces de l'Atlantique, 6 p. 100.

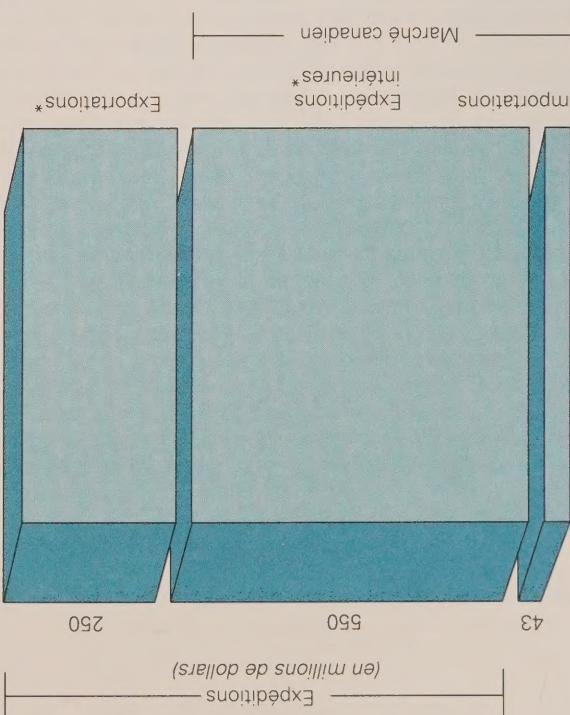
La capacité de l'industrie canadienne est évaluée à quelque 5 milliards de pieds cubes (MPC) pour une épaisseur de 3/8 de po, soit 4,4 millions de mètres cubes estimée à 32 MPC, soit 28,3 MWC. Les usines canadiennes fournissent environ 12 p. 100 de la capacité mondiale, évaluée à plus de 40 MPC, soit plus de 35 MWC.

Le sous-sol canadien des pannneaux gaufrés et des panneaux DBR représente environ 34 p. 100 de la capacité nord-américaine. Jusqu'ici, les exportations ont été limitées en raison des tarifs élevés, de la non-homologation des produits par les différents codes du bâtiment étrangers, des frais de transport élevés comparés à ceux du continent américain et du manque d'information sur la plupart des marchés extérieurs. En fait, avant l'ouverture récente de plusieurs usines canadiennes au Québec, les panneaux DBR n'étaient en Europe de l'Ouest et en Nouvelle-Zélande, les deux dernières années.

En 1986, cette industrie expédiait pour quelque 800 millions de dollars de marchandises, soit environ 6,8 p. 100 des expéditions de produits du bois. Puis de 80 p. 100 du commerce de résineux et quelque 50 p. 100 des panneaux gaufrés et de panneau 6,8 p. 100 des expéditions de marchandises, soit environ 800 millions de dollars de produits du bois. Les OSB étaient étonnés par l'absence de marché intérieur. Les expéditions intérieures de contreplaqué de résineux étaient évaluées à 400 millions contre 6700 millions directs dans la province. Cette industrie assurait quelque 250 millions de dollars de produits, soit des panneaux gaufrés et des panneaux OSB ainsi que du placage de résineux vers les États-Unis, et du contreplaqué de résineux vers la CEE et le Japon. Les exportations représentent environ 31 p. 100 de la valeur des expéditions de panneaux dérivés du bois destinées à la construction. Les importations — surtout du contreplaqué de résineux proviennent des États-Unis — représentent 7 p. 100 du marché canadien des panneaux. Sauf pendant les périodes où la production a diminué, les importations de contreplaqué n'ont occupé qu'une faible place sur le marché canadien, en raison des différentes normes en usage, de l'influence des tarifs canadiens et des taxes de change défavorables aux importations au Canada.

* Estimations d'ISTC.

1998 - implications, expectations et expéductions interrégionales.



1. Structure et rendement

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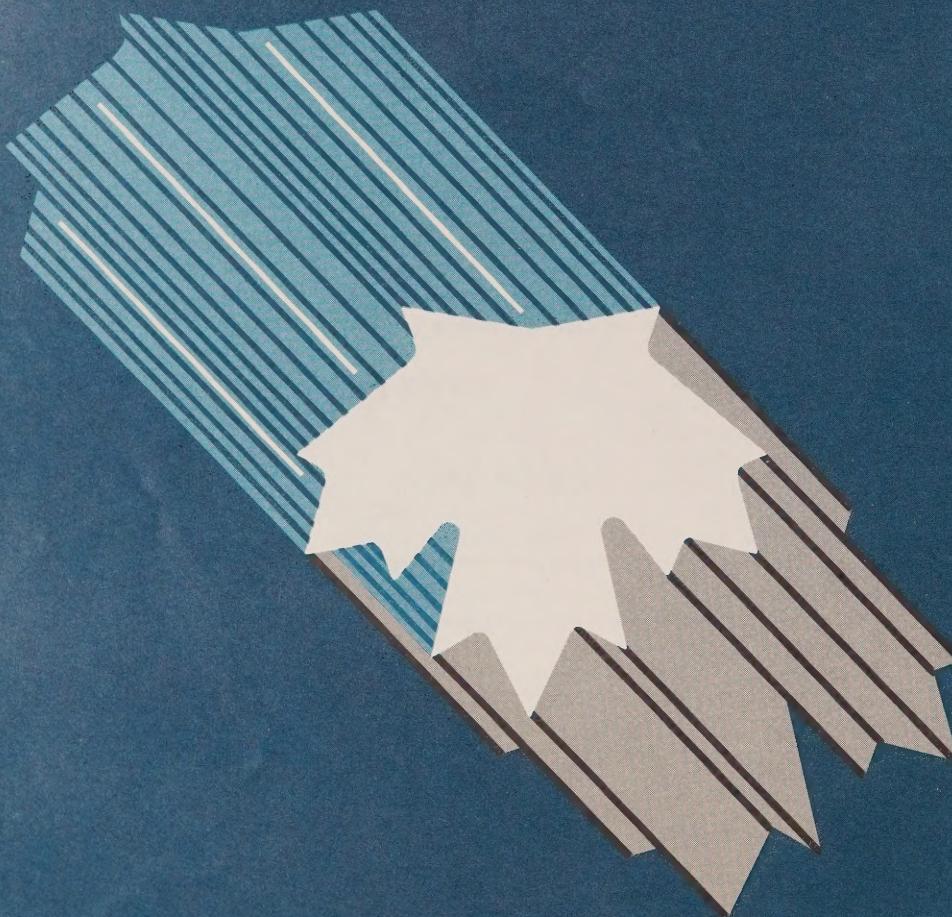
PANNEREAUX DERIVES — DU BOIS — CONSTRUCTION

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